

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Date of Report: 05/13/99

Date Received: 04/29/99

Project: Metro Self Monitor, PO# M61876

Date Samples Extracted: 05/10/99

Date Extracts Analyzed: 05/10/99

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, ZINC  
USING METHOD 6010**

**Samples Processed Using Method 3005A**

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M61876	0.84	0.74	0.80	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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### QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 904115-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.84	0.91	8	0-20
Copper	mg/L (ppm)	0.74	0.83	11	0-20
Nickel	mg/L (ppm)	0.80	0.85	6	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 904115-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	0.84	104	105	80-120	1
Copper	mg/L (ppm)	5	0.74	109	106	80-120	3
Nickel	mg/L (ppm)	10	0.80	104	105	80-120	1
Zinc	mg/L (ppm)	5	<0.05	106	107	80-120	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	107	104	80-120	3
Copper	mg/L (ppm)	5	104	99	80-120	5
Nickel	mg/L (ppm)	10	107	105	80-120	2
Zinc	mg/L (ppm)	5	111	109	80-120	2

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Jensen, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
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May 13, 1999

DUPLICATE COPY

INVOICE #99ACU0513-1

Accounts Payable  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M61876: Results of testing requested  
by Gerry Thompson for material submitted on April 29, 1999.

1 water sample analyzed for  
Chromium, Copper, Nickel, and Zinc  
using Method 6010 @ \$80 per sample

\$ 80.00

Amount Due .....

\$ 80.00

FEDERAL TAX ID (b) (6)

FRIEDMAN & BRUYA, INC.

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May 13, 1999

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on April 29, 1999 from your Metro Self Monitor, PO# M61876 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Manuel Marti  
Project Manager

Enclosures  
ACU0513R.DOC